

CLAIMS

[1] An elastomer film characterized in having an elastomer layer consisting of a polar group-modified olefin-based copolymer, and a metal ion and/or a metal compound.

[2] The elastomer film according to Claim 1,

wherein the polar group contained in said polar group-modified olefin-based copolymer is at least one group selected from the group consisting of carboxyl group and derivatives thereof, hydroxyl group, epoxy group, amino group, alkoxysilyl group, sulfonic acid group and nitrile group.

[3] The elastomer film according to Claim 1,

wherein said polar group-modified olefin-based copolymer is at least one polymer selected from the group consisting of a polar group-modified ethylene- α -olefin-based copolymer and a polar group-modified ethylene- α -olefin-non-conjugated diene copolymer.

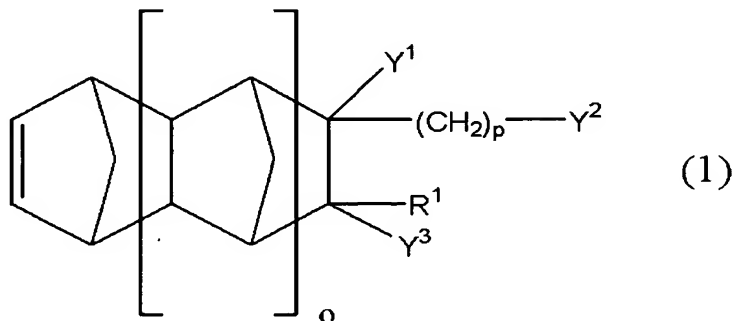
[4] The elastomer film according to Claim 1,

wherein said polar group-modified olefin-based copolymer is a copolymer obtained by copolymerizing one type or two or more olefin-based monomers, and one type or two or more unsaturated monomers having a polar group, and

wherein the ratio of a unit of said unsaturated monomer having a polar group is from 0.01 to 5 % by mol based on 100 % by mol of monomer units in said polar group-modified olefin-based copolymer.

[5] The elastomer film according to Claim 4,

wherein said unsaturated monomer having a functional group is a compound represented by the following general formula (1):



[in the general formula (1), R^1 represents a hydrogen atom or a hydrocarbon group of 1 to 10 carbon atoms; each of Y^1 , Y^2 and Y^3 represents independently a hydrogen atom, a hydrocarbon group of 1 to 10 carbon atoms or a carboxyl group; at least one of Y^1 , Y^2 and Y^3 is

carboxyl group and, in a case where two or more of Y^1 , Y^2 and Y^3 are carboxyl groups, they may be an acid anhydride formed by linkage with one another, o represents an integer from 0 to 2 and p represents an integer from 0 to 5.].

[6] The elastomer film according to Claim 1,

wherein said polar group-modified olefin-based copolymer does not have a crosslinking formed by electron beam irradiation, UV-ray irradiation, and a crosslinking agent.

[7] The elastomer film according to Claim 1,

wherein at least a portion of said polar group-modified olefin-based copolymer has a crosslinking formed by electron beam irradiation, UV-ray irradiation and a crosslinking agent.

[8] The elastomer film according to Claim 1,

wherein said metal ion and/or said metal compound is at least one ion and/or compound of a metal selected from the group consisting of zirconium, titanium, aluminum, magnesium, barium, zinc, iron, calcium, potassium, sodium and lead.

[9] The elastomer film according to Claim 1,

wherein said metal compound is an organic compound comprising a metal element.

[10] The elastomer film according to Claim 1, wherein the total transmittance of said elastomer layer is 90% or higher at a temperature of 25°C and at a thickness of 0.5 mm.

[11] The elastomer film according to Claim 1,

wherein other film layer and/or a hard transparent plate layer is present on at least one surface of said elastomer layer.

[12] A method of producing an elastomer film characterized in comprising:

preparing a mixed liquid by dissolving or dispersing a polar group-containing olefin-based copolymer and a metal compound in a solvent,

coating said mixed liquid on a substrate, and

removing said solvent to form an elastomer layer on said substrate.

[13] The method of producing an elastomer film according to Claim 12, comprising applying electron beam irradiation or UV-ray irradiation onto said elastomer layer, or heating said elastomer layer to form crosslinking in at least a portion of said polar group-containing olefin-based copolymer.

[14] A method of producing an elastomer film characterized in forming an elastomer layer by extrusion molding with a liquid comprising a polar group-containing olefin-based copolymer and a metal compound.

[15] The method of producing an elastomer film according to Claim 14, comprising disposing said elastomer layer on a substrate.

[16] The method of producing an elastomer film according to Claim 14, comprising applying electron beam irradiation or UV-ray irradiation onto said elastomer layer, or heating said elastomer layer to form crosslinking in at least a portion of said polar group-containing olefin-based copolymer.